

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

ECOFACITOR, INC.,

EcoFactor,

v.

ECOBEE, INC.,

Defendant.

Case No. 6:20-cv-00078-ADA

JURY TRIAL DEMANDED

ECOFACITOR, INC.,

EcoFactor,

v.

ECOBEE, INC.,

Defendant.

Case No. 6:21-cv-00428-ADA

JURY TRIAL DEMANDED

LEAD CASE

DEFENDANT'S REPLY IN SUPPORT OF
DEFENDANT'S MOTION FOR PARTIAL SUMMARY JUDGMENT

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Defendant (“ecobee”) hereby provides its reply in support of its motion for partial summary judgment as set forth below.

II. ECOBEE DOES NOT INFRINGE INDIRECTLY OR WILLFULLY

A. EcoFactor Identifies No Genuine Issues of Fact to Avoid Summary Judgment On The Issues of Induced and Willful Infringement

EcoFactor does not dispute that it never provided notice of the ’100, ’186 or ’890 patents (the “-00428 Asserted Patents”) to ecobee before the filing of the Complaint in this action. Nor does EcoFactor point to evidence demonstrating ecobee’s pre-suit knowledge of the -00428 Asserted Patents. Thus, contrary to EcoFactor’s assertions, no facts support a finding that ecobee either (i) *knew of the patents* in question and *knew the induced acts were infringing* (as required for inducement); or (ii) had a *specific intent to infringe* at the time of the challenged conduct (as required for willfulness).

EcoFactor argues that it can “avoid summary judgment” because it “filed complaints against ecobee in the ITC two separate times, accusing it of infringing a total of eight patents.” Opp’n at 7. But, EcoFactor’s ITC complaints did not identify the -000428 Asserted Patents and, therefore, cannot support an inference that ecobee had pre-suit knowledge of these particular patents. *See, e.g. Meetrix IP, LLC v. Cisco Systems, Inc.*, No. 1-18-CV-309-LY, 2018 WL 8261315, at *2 (W.D. Tex. Nov. 30 2018) (citations to a different patent application “fails to raise a plausible inference of pre-suit knowledge.”).¹ Moreover, evidence regarding the ITC litigations conflicts with EcoFactor’s inducement and willfulness arguments because, in those Investigations, *the ITC repeatedly found the ecobee did not infringe the asserted patents and/or that the patents*

¹ EcoFactor argues that the *Finjan* and *Meetrix* decisions are distinguishable because they did not “pertain to pre-suit notice in the form of an actual infringement lawsuit.” Opp’n at 8. However, as explained herein, EcoFactor’s filing of two prior ITC Investigations, and the ITC’s findings of non-infringement in both those Investigations, weighs in favor summary judgment, not against it.

were *invalid*. Nor does EcoFactor dispute that the specific limitations that ecobee was found not to infringe in the ITC are *the same limitations* that are present in the claims of the -00428 Asserted Patents. So, regardless of whether ecobee knew of the -00428 patents (it did not), the undisputed record evidence (including the ITC’s findings of non-infringement) all serves to support ecobee’s belief that it does not infringe, and does not induce others to infringe, the -000428 Patents.²

EcoFactor has no evidence of ecobee’s relevant knowledge or intent, so instead it presents a series of red herrings. First, EcoFactor argues that ecobee was a competitor of EcoFactor who purportedly analyzed EcoFactor’s technologies and kept tabs on EcoFactor’s developments. Opp’n. at 7-8. None of this is true, however. Even if viewed in a light most favorable to EcoFactor, its assertions would at most show that certain ecobee employees may have known that EcoFactor existed as a company. If that were sufficient proof, then all infringement of patents owned by household names like Ford or Disney would always be intentional. Simply put, knowledge of a company’s existence has never served as evidence of notice needed to provide knowledge of the specific patents-in-suit and the specific intent to infringe those patents.

EcoFactor also argues that “ecobee’s citations to EcoFactor’s patents or patent applications further demonstrate its knowledge of EcoFactor’s inventions.” Opp’n at 8. As an initial matter, this argument is waived because EcoFactor never raised it in its Interrogatory Responses. Mot., Ex. 6 at 35-36, 48-49. It is also immaterial. What EcoFactor identifies are merely citations during prosecution of ecobee patent applications—made years *before* the issuance of the -00428 Asserted Patents—to U.S. Patent No. 7,848,900. Notably, however, EcoFactor has never asserted this

² The lack of estoppel effect given to ITC decisions is immaterial to the pertinent question, which is whether ecobee knew it was infringing. In that regard, the fact that two ALJs and two different Commissions all concluded, through more than 1,000 pages of analysis, that the ecobee accused products do not practice the EcoFactor patents supports ecobee’s conclusion that it has not infringed, and that it did not induce others to infringe, the -00428 Asserted Patents.

patent against ecobee. EcoFactor's attorney argument does not come close to establishing the requisite pre-suit knowledge of the patents-in-suit. *See, e.g. Princeton Dig. Image Corp. v. Ubisoft Entm't SA*, No. 13-335-LPS-CJB, 2017 WL 6337188, at *1 (D. Del. Dec. 12, 2017) (concluding no pre-suit knowledge of asserted patent when defendant's patent cited another patent which itself referenced asserted patent); *Vasudevan Software, Inc. v. TIBCO Software Inc.*, No. C 11-06638 RS, 2012 WL 1831543, at *3 (N.D. Cal. May 18, 2012) (awareness of Asserted Patent's application and related patent with same specification was insufficient to infer pre-suit knowledge of Asserted Patent).

Finally, EcoFactor contends that its "infringement expert will explain at trial that ecobee infringes the Asserted Patents," and its "validity expert will explain at trial that the Asserted Patents are not invalid." Opp'n at 8. But that reflects what *EcoFactor* believes. To establish induced or willful infringement, EcoFactor must show that *ecobee* knew of the asserted patents and that *ecobee* had an intent to infringe. EcoFactor cannot come close to doing so.

B. EcoFactor Identifies No Genuine Issues of Material Fact to Avoid Summary Judgment On The Issue of Contributory Infringement

Like induced infringement, "contributory infringement requires *knowledge of the patent in suit* and *knowledge of patent infringement*." Opp'n at 9 (emphasis added). *ecobee*'s lack of knowledge of the -00428 Asserted Patents and lack of knowledge of infringement of these patents, as discussed above, preclude a finding of contributory infringement.

ecobee is also entitled to summary judgment as to contributory infringement because the accused products undoubtedly have substantial non-infringing uses. *See* 35 U.S.C. § 271(c). EcoFactor does not dispute that its infringement theories require the accused *ecobee* thermostats be connected to the internet; so the use of the thermostats in absence of an internet connection is

non-infringing. Yet, the Accused Products indisputably can work *as thermostats* in the absence of an internet connection (and thus the accused technologies).

EcoFactor's argument is not only illogical, but belied by the undisputed record evidence. For instance, in regard to the '100 and '186 patents, EcoFactor does not dispute that the accused Time of Use and Community Energy Savings features can only be used when the Accused Products are used in an environment where a utility employs varying energy rates (for Time of Use) or sends demand response events (for Community Energy Savings). Nor does EcoFactor dispute that the Accused Products can be used outside of those environments. Similarly, as to the '890 patent, EcoFactor does not dispute that the accused occupancy detection features are implemented in very specific circumstances that do not apply for the majority of customers.

In an effort to avoid summary judgment, Ecofactor points to Mr. de la Iglesia's assertion that the accused products "are not capable of substantial non-infringing uses." But Mr. de la Iglesia provides no analysis or evidence to support that opinion. An expert's conclusory assertions cannot defeat a motion for summary judgment *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 1001 (Fed. Cir. 2008) ("Conclusory expert assertions cannot raise triable issues of material fact on summary judgment.")

EcoFactor also argues, without support, that using the ecobee thermostat without the internet can't be a substantial non-infringing use because "consumers pay a lot of money precisely to purchase a smart thermostat, the features of which, are effectively utilized through connecting it to the internet." Opp'n at 5. But EcoFactor cites no record evidence to support its attorney argument. In fact, EcoFactor's own expert testified that he has an ecobee thermostat installed in his home, and yet *does not use* the accused features. *See* Ex A at 69:6-23 (Mr. de la Iglesia testifying that he does not use the ecobee mobile app (which is required for the accused geo-fencing

functionality), does not use Community Energy Savings and does not use the Time of Use feature). Accordingly, there are no genuine issues of material fact that the ecobee Accused Products are capable of substantial non-infringing uses, so ecobee is entitled to summary judgment of no contributory infringement.

III. THE '327 PATENT CLAIMS ARE INVALID UNDER 35 U.S.C. §101

A. All Asserted Claims Are Directed to an Abstract Idea

Unable to dispute that the '327 claims lack concrete, technological improvements, EcoFactor turns to the specification to argue about the “claimed advance” of the patent. But the disclosure that EcoFactor latches onto is missing from the claims, which merely recite the implementation of an abstract idea using conventional, general-purpose computers.

Specifically, EcoFactor argues that the '327 Patent improves upon conventional HVAC control systems by “tak[ing] the thermal mass of the structure into account.” Opp’n at 21. But while this concept shows up in the specification, it is not in any of the asserted claims. The claims asserted here concern changing the thermostat setting in response to a request to reduce energy usage. As EcoFactor acknowledges: “Specifications teach. Claims claim.” Opp. at 20.

Moreover, under EcoFactor’s interpretation, the “claimed advance” of the '327 patent is nothing more than an Internet-connected thermostat. *See* Opp’n at 11 (describing the claimed solution as “an unconventional electronic HVAC control system with a networked thermostat with a temperature sensor and a database”). EcoFactor points to a color-annotated version of Figure 4 as somehow supporting its argument (*see* Opp’n at 12), but EcoFactor offers no explanation as to how the depicted components were unconventional or represented a technical improvement. If anything, the specification makes clear that conventional versions of such components could be used to implement the claimed invention. *See* Mot. at 20, 34.

Even if EcoFactor's recharacterization of the claims were to be credited, it is unhelpful to EcoFactor because merely placing the claimed inventions in the realm of computers and networks does not transform the abstract ideas into something patent eligible. Claims, such as those asserted here, which use computers merely as conventional tools and do not recite an improvement in computers technology are not patent eligible. *See, e.g., Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed. Cir. 2020). Moreover, nothing in the asserted claims "enable[s] computers to operate more quickly or efficiently, nor do they solve any technological problem." *Id.* The asserted claims merely use conventional computers and components as tools to record temperatures, calculate a rate of change using a known mathematical formula, and send and receive instructions.

The Court should also reject EcoFactor's suggestion that, under *Diehr*, the patent claims' recitation of a "rate of change" calculation based on Newton's law insulates them from a section 101 challenge. The Supreme Court in *Diehr* did not so hold. Instead, the Supreme Court said that use of a well-known mathematical equation was not determinative of invalidity—rather, the Court must look to whether the formula "implements or applies [it] in a structure or process which, [] considered as a whole, is performing a function which the patent laws were designed to protect." *Id.* at 192; *see also Thales Visionix, Inc. v. United States*, 850 F.3d 1343, 1347–48 (Fed. Cir. 2017). The mathematical formula at the heart of the '327 patent claims, unlike in *Diehr* and *Thales*, is not used to improve upon prior methods or functions.

The asserted claims here are more akin to those held invalid by the Supreme Court in *Parker v. Flook*, 437 U.S. 584 (1978). In *Flook*, the Court examined a method for updating alarm limits, in which the only novel feature was a mathematical formula. *Id.* at 585. Even though the mathematical formula was being applied for a specific purpose, the claimed method was patent-

ineligible because finding it patentable would be like saying that “the formula $2\pi r$ can be usefully applied in determining the circumference of a wheel.” *Id.* at 595. Such is the case here. The “rate of change” calculation in the claims is not being applied to solve a novel technological problem—it is being used to calculate the rate of change in temperature over time just as Newton intended over 300 years ago. *See* Mot. at 21 (citing Ex. 25 at 14–15).

Importantly, there is no reasonable dispute that all the claimed functions can be carried out by a human being, or that the claimed inventions amount to connecting the conventional devices that perform those functions in a computer network. EcoFactor’s own validity expert admitted as much at his deposition, where he backed away from statements made in his report, and admitted that a human could complete the claimed steps by using a pencil and paper. *See* Mot. at 21-22 (citing Ex. 23 at 93:1-9, 94:7-15).

B. The Asserted ’327 Claims Do Not Recite an Inventive Concept

EcoFactor’s Step Two argument rehashes its Step One argument and fails for the same reasons—the “inventive concept” must be present in the claims, and recasting the same abstract idea as something “new” does not make the idea patent eligible. “To save a patent at step two, an inventive concept must be evident in the claims.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017). The inventive concept must supply “significantly more” than the abstract idea, *BSG Tech, LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1289–90 (Fed. Cir. 2018), and must comprise more than “well understood, routine, conventional” or “purely functional” claim elements. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l.*, 573 U.S. 208, 224–26 (2014).

EcoFactor fails to articulate any inventive concept beyond the abstract idea of a “computer-networked HVAC control system, with all the other specific claimed advances.” Opp’n at 22. Without specifying the “other specific claimed advances,” EcoFactor contends that the “ordered combination of all the claim elements are inventive” -- but EcoFactor does not explain why this is

so. *Id.* Indeed, “[t]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223.

EcoFactor does not seriously dispute ecobee’s showing that the claimed invention is made up of generic components. Instead, EcoFactor argues that ecobee does not consider the entire claim as an ordered combination without even specifying what the purported order is or substantiating its significance. EcoFactor’s attempt to conjure an ordered combination argument, without discussing the substance and import of the ordered combination, thus fails.

In search of an inventive concept in the ’327 patent, EcoFactor again relies on the specification’s reference to thermal mass, asserting that prior to the claimed invention, HVAC controls had “no mechanism by which it might take the thermal mass of the structure into account.” Opp’n at 21. Even if this statement were true, it is irrelevant to the *Alice* Step Two inquiry because, as explained above, thermal mass is not in the claims. *See Two-Way Media Ltd. v. Comcast Cable Commc’n., LLC*, 874 F.3d 1329, 1338 (Fed. Cir. 2017) (“To save a patent at step two, an inventive concept must be evident *in the claims*.”) (emphasis added).

The only “evidence” EcoFactor relies on in support of its *Alice* Step Two argument consists of citations to the patent specifications and two pieces of extrinsic evidence: an internal EcoFactor document describing an EcoFactor product rather than any of the asserted patents (let alone the claims), and conclusory testimony from a named inventor that the “combination” in the patent was not “conventional at the time.” None of these show an inventive concept. Thus, for all the reasons above, there is no genuine dispute of material fact as to *Alice* Step Two.

IV. THE CLAIMS OF THE ’100 PATENT LACK WRITTEN DESCRIPTION

The asserted claims of the ’100 patent require (i) evaluating parameters, including both outside temperature and a predicted rate of change, and then (ii) making a determination between two ventilation system delay intervals based upon the values of those specific parameters. Mot.,

Ex. 2 at cl. 1, 9. EcoFactor cannot identify any written description support for these limitations, so it instead resorts to mischaracterizing the claims, the specification and the testimony of ecobee's expert. None of EcoFactor's argument present a genuine issue of material fact.

For instance, EcoFactor argues that ecobee's motion is "at odds with their own expert's opinions" because, according to EcoFactor, Dr. D'Andrade recognized that "Figures 7 and 8 and the corresponding portions of the specification contain teachings about the evaluation and determination steps." Opp'n at 28. But that is not what Dr. D'Andrade said. Dr. D'Andrade expressly stated these portions of the specification do "***not provide any explanation of how any parameters are evaluated***—neither what the evaluation would entail nor what impact the evaluation would have on the determination of which delay interval to utilize." Mot., Ex. 26 ¶185. Dr. D'Andrade's opinions are not at odds with ecobee's motion and do not support EcoFactor's contentions.

Next, EcoFactor contends that the specification's discussion of step 1108 (in Figure 7) describes the use of rate of change and outside temperature in the claimed evaluation and determination limitations. Opp'n at 29. But the specification makes clear that step 1108 merely relates to "*retriev[ing]* the parameters needed to specify the *compressor delay* routine." Mot., Ex. 2 at 8:50-51. Nothing in the specification's discussion of this step describes the claimed evaluating and determining limitations. The specification never identifies a predicted rate of change as being one of the retrieved parameters. It describes no evaluation of a predicted rate of change (or any other parameter) to select a particular delay. And it certainly does not suggest the selection of a ventilation system delay interval, as the claims require.

Unable to point to any relevant support in the specification, EcoFactor attempts to mischaracterize the claims by arguing that they "do not require a particular type of delay, such as

[a] ventilation delay.” Opp’n at fn. 7. But the claims could not be clearer in this regard. *See*, ’100 patent at claim 1 (requiring that the delay setting intervals must be “for a delay enforced by said thermostatic controller after said thermostatic controller *turns said ventilation system off* prior to allowing said thermostatic controller *to signal said ventilation systems to turn on* again”); *Id.* at claim 9 (requiring a “process for optimizing the delay enforced by a thermostatic controller after said thermostatic controller *turns a ventilation system off* prior to allowing said thermostatic controller *to signal said ventilation system to turn on* again).

Nor is there any merit to EcoFactor’s assertion that, because step 1108 contemplates receiving “user preferences,” it would somehow “implicate” the evaluation of a predicted rate of change. Opp’n at 30. To the contrary, the claims of the ’186 patent identify the predicted rate of change as a value that is *calculated* by the server computer, not a preference that is set by a user. So EcoFactor’s attorney argument is baseless and without support in the intrinsic record.

EcoFactor’s reliance on Figures 8(a) to 8(c) of the ’100 patent is similarly misplaced. Figures 8(a) to 8(c) relate to compressor delays—not ventilation system delays—and therefore do not provide written description support for the claims. But even if one were to improperly equate a compressor delay with a ventilation system delay, Figures 8(a) to 8(c) still do not provide written description support. As EcoFactor and its expert concede (Mot., Ex. 5 at ¶ 117; Opp’n at 33), what Figures 8(a) to 8(c) show is the “*impact*” that different compressor delay settings “would have on the operation of an HVAC system”—not the evaluation and determination of a delay setting. This, under EcoFactor’s theory, would be a situation where “the specification merely describes a desired result,” *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 682 (Fed. Cir. 2015)—which, as set forth in ecobee’s opening brief (Mot. at 26-27), does not satisfy the written description requirement.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document was filed electronically UNDER SEAL and served by e-mail on January 20, 2023, to all counsel of record.

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